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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,726	10/15/2001	James W. Landes	01-521	3323
719	7590	05/10/2004	EXAMINER	
CATERPILLAR INC. 100 N.E. ADAMS STREET PATENT DEPT. PEORIA, IL 616296490			SWENSON, BRIAN L.	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,726

Applicant(s)

LANDES ET AL.

Examiner

Brian Swenson

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Acknowledgment is made of the amendment filed on 3 February 2004 where:
 - a. Claims 1 and 11 have been amended;
 - b. Claims 1-16 pending in this office action.

Applicant's arguments, see pages 5-8 of the amendment filed 3 February 2004 and during the interview on 2 February 2004, with respect to the rejection(s) of claim(s) 1-16 under 35 U.S.C. 103 (U.S. Patent No. 5,054,570 issued to Naito in view of U.S. Patent No. 6,076,6225 issued to Chakraborty et al.) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nishimura, as detailed below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7-8, 11, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,695,020 issued to Nishimura.

Nishimura teaches in Figures 1-30 and respective portions of the specification of a compression ignition engine (40) and method of controlling the compression engine including: an electronic controller (20) producing fuel deliver commands to control power output of the engine, the electronic controller including a cruise control mode (see Col.

1, line 5); and an advanced cruise control system (distance sensor 10 is part of the advanced cruise control system that maintains an inter vehicle distance between the controlled vehicle and a preceding vehicle) connected with the electronic controller and producing communication signals, wherein the electronic controller receives the communication signals and calculated a fuel delivery command based, at least in part, on the communication signals at least when the electronic controller is in an advanced cruise control mode (see at least Col. 5, lines 20-23), and wherein the electronic controller disengages the advanced cruise control mode in response to receiving no valid communication signal from the advanced cruise control system for greater than a first period of time. Nishimura teaches in Figures 20-22 and Cols. 18-21 of controlling the vehicle based on a missing signal from the distance sensor (10). The missing signal is taken to be a non-valid communication signal and Nishimura teaches that advanced (interval based) cruise control is disengaged and (speed based) cruise control is effected when the signal is missing for a first period of time (t_1).

In regards to claims 7-8 Nishimura teaches of a resume and coast switch (65) for re-engaging the cruise control system and main control switch (63) for initialization of the cruise controller.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-6, 9, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura.

In regards to claims 2 and 12, Nishimura teach of a second period of time (t_2 ; Figure 22) where the interval distance variable (E_{di}) are reset but is silent is the advanced cruise controller is disabled. It would have been obvious to one having ordinary skill in the art at the time of invention to disable the advance cruise controller. One would be motivated to disable the advanced cruise controller, prevent the vehicle from operation by advanced cruise controller when valid (missing) signals are not received from the distance sensor (10) of the advanced cruise control system providing the advantage of improving vehicle safety.

In regards to claims 3-6, Nishimura discloses the claimed invention except for stating if the first time period (t_1) less than about 500 ms and to make the second time period (t_2) is about 3500 ms. It would have been obvious to one having ordinary skill in the art at the time of invention to make the first time period (t_1) less than about 500 ms and to make the second time period (t_2) is about 3500 ms, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Allowable Subject Matter

Claims 10 and 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the primary reasons for the indication of allowable subject matter is the inclusion of: re-initializing the advanced cruise control of the vehicle after a second predetermined period of time has elapsed only by re-starting the engine.

Response to Arguments

In response to applicant's arguments with respect to the previous rejection of the claims and as clarified during the interview that applicant's invention is directed towards non-valid communication signals within the CAN network between the advanced cruise controller and the ECU that arise from non-compatible hardware modules, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The missing signals taught by Nishimura are non-valid communication signals from the distance sensor of the advanced cruise controller and Nishimura teaches of the method of disabling the advanced cruise controller in response to the missing signals.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,552,985 issued to Hora teaches of a cruise controller with a watch-dog signal that is monitored over a first time period to ensure proper functioning of the cruise control system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (703) 305-8163. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Swenson
Examiner
Art Unit 3618

BS 5/1/04
bls


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5/13/04